

MARKED-UP VERSION OF AMENDED CLAIM

1. (Twice Amended) A device with a stator having high performance flat coils comprising:

a stator ring formed by a plurality of arcuate stator segments, each of said stator segments having a convexly shaped projection on one end thereof and a concavely shaped recess on an opposing end, said recess having a complementary contour to a contour of said projection for joining said stator segments end to end, each of said stator segment having a plurality of angularly spaced grooves in an arcuate surface thereof;

a plurality of stator teeth respectively engaged in said grooves of said plurality of stator segments, each stator tooth [portion] being punched from silicon steel pieces and having a tooth face having a cambered surface, the stator tooth having a tooth root end extending backwards from a center of the cambered surface, a distal end of the tooth root end extending outwardly with a tooth root distal end that is not larger than a maximum width of the tooth root end, said tooth root distal end of each stator tooth being engaged in a respective one of said grooves of said stator segments;

a plurality of wire groove seats, each wire groove seat being formed by an insulator and having a T-shaped contour, [the] each wire grove seat having a longitudinally extended vertical post for receiving a respective coil of a motor or a generator and defining an axis thereof, an interior of the longitudinally extended vertical post being

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hollow and being engagable with the stator tooth root end, and the hollow portion being a hollow end of the wire groove seat; and

a plurality of flat coils respectively disposed on said plurality of wire groove seats, each flat coil being formed as an annulus by a plurality of turns of a helically wound flat wire axially overlaid one upon another, [the] each flat coil having an opening through which a respective [the] longitudinally extended vertical post passes, [each of the plurality of turns of the flat wire being wound in a direction normal to the coil axis, the plurality of turns being axially overlaid one upon another,] a thickness of the flat wire being less than a depth of the longitudinally extended vertical post of the wire groove seat divided by a predetermined number of turns of the flat coil corresponding to a rated rotary speed, a width of the flat coil being smaller than a width of a winding space of [the] a corresponding wire groove seat, a distal axial end of the flat coil being installed with an insulating piece.

REMARKS

This case has been carefully reviewed and analyzed in view of the Final Official Action dated 17 July 2002. Responsive to the rejections made in the Official Action, Claim 1 has been amended to clarify the language thereof and the combination of elements which form the invention of the subject Patent Application.

In the Official Action, the Examiner rejected Claim 1 under 35 U.S.C. § 112, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The Examiner stated that the term "the coil axis" was indefinite and lacked proper antecedent basis. Accordingly, the limitation incorporating "the coil axis" has been deleted from the Claim, thereby obviating the rejection under 35 U.S.C. § 112.

In the Official Action, the Examiner rejected Claim 1 under 35 U.S.C. § 103, as being unpatentable over Applicant's admitted prior art in view of Finegold, U.S. Patent #4,446,393 and Nihci, et al., U.S. Patent #4,857,786.

The invention of the subject Patent Application, as shown in FIGS. 7A and 7B, and now claimed, is directed to a device with a stator having high performance flat coils which includes a stator ring formed by a plurality of arcuate stator segments, each of the stator segments having a convexly shaped projection on one end thereof and a concavely shaped recess on an opposing end, the recess having a complementary contour to a contour of the projection for joining the stator segments end to end. Clearly, that structure is not shown in

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the admitted prior art of FIG. 8. Nor is it disclosed nor suggested by either Finegold or Nihei, et al.

Thus, the combination of the admitted prior art, Finegold, and Nihei, et al. cannot make obvious the invention of the subject Patent Application as now claimed.

For all the foregoing reasons, it is now believed that the subject Patent Application has been placed in condition for allowance, and such action is respectfully requested.

Respectfully submitted,
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